

Amendments to the Specification:

Please amend the paragraph at page 2, lines 11-19 as follows:

In particular, in the UWB having a high frequency, it is difficult to prevent carrier leakage, and pulse-off time is approximately four several thousand times pulse-on time in a short-range radar using a UWB. For this reason, a power of the carrier leakage becomes very high. As a result, a spectrum density S_x of the short pulse P_b has a characteristic that, for example, as shown in FIG. 25, a leakage component S' considerably outstands at a position corresponding to a carrier frequency f_c .